

Transport Network Optimization Services

Case Study

Tellabs Global Services identifies billing errors and annual savings to provide wireless carrier with major savings and substantial return on investment

When wireless carriers begin offering service in an area, it's difficult to predict how many customers they will get and how much traffic they will need to carry. Often the carrier initially will provision the network with relatively low bandwidth and add capacity as needed.

One major U.S. wireless carrier started with DS-1 or DS-3 circuits leased from numerous landline carriers in a major metropolitan area, adding additional low-capacity circuits as needed to support traffic growth. But eventually the carrier realized it could save substantially on its monthly transport costs by moving to an OC-48 ring configuration and migrating traffic from the DS-3 transport network.

"Carriers get to the point where they're overpaying for transport," explained Mike Rupnow, professional services product manager for Tellabs. "They're spread across multiple carriers and they don't have the higher level bandwidth that can offer more cost-effective channelization."

The OC-48 ring that the wireless carrier is using now is contained within an OC-192 connection. The additional capacity available due to the OC-192 connection provides the wireless carrier the capability for cost-efficient and timely provisioning in the future as needed to support traffic growth. The project required migrating traffic from the legacy stand-alone DS-3 transport network onto a SONET entrance facility to reduce transport costs and streamline network design, provisioning and maintenance.

By enlisting the help of Tellabs Global Services with the task of designing the SONET transport ring and migrating the legacy DS-3 transport network onto that platform, the wireless carrier was able to migrate circuits with minimal service disruption. In preparation for the move, Tellabs Global Services conducted an audit that identified numerous billing errors. This gave the wireless carrier a combined one-time credit and annual savings that yielded a substantial return on investment.

The Audit Process

The wireless carrier chose Tellabs Global Services to help with the transport network migration project because of the expertise that Tellabs was able to demonstrate in transport network design, order placement with local exchange carriers and database updates.

Tellabs Global Services' first step was to do an audit of the wireless carrier's existing connections in the metro area. According to billing records, the carrier was paying for more circuits than it was actually using — a situation that can occur when a carrier cancels service from a wholesale supplier but the supplier continues to bill for the service. Depending on the terms of the carrier's agreements with various suppliers, the carrier was entitled to a retroactive credit going back as far as 24 months for incorrectly billed services.



Executive Summary

Client

A major U.S. wireless carrier

Tellabs Role

Designing a SONET transport ring to serve a major metropolitan market and migrating the carrier's legacy DS-3 transport network onto that platform. In preparation for this task, Tellabs Global Services conducted an audit that identified numerous billing errors.

Business Results

- Tellabs Global Services' audit yielded the wireless carrier a combined one-time credit and annual savings that was more than sufficient to pay for the cost of the entire Tellabs Global Services engagement.
- Annual savings provided substantial return on investment beyond the one-time credits.
- The total net savings were more than \$400 per DS-1.
- Traffic was migrated with minimal service disruption.



Several Tellabs Global Services analysts worked full-time on the wireless carrier's audit for five weeks. The audit included an interconnect agreement (ICA) audit, a carrier facilities assignment (CFA) audit and an audit of universal service ordering codes (USOC).

The ICA audit looked at agreements with network operators providing voice switching to make sure that the operators were billing appropriately.

The CFA audit monitored a live signal from every DS-1 and traced it back to the carrier's records to confirm which circuit it was on. These results were then compared with the carrier's records to generate a discrepancy report, which identified unused circuits.

The USOC audit looked at the USOC for every connection to confirm whether the service description matched the service the wireless carrier had ordered. For services billed on a mileage basis, the Global Services team also confirmed that all distance measurements were correct.

When the audits were completed, Tellabs Global Services had identified errors for services already billed for which the carrier was entitled to a credit. Tellabs Global Services also identified an ongoing annual savings resulting from the billing audit which further increased return on investment.

The net savings per DS-1 was more than \$400—an impressive number considering that the nationwide average cost of a DS-1 is in the range of \$200 to \$300 per month.

Transport Network Migration

The transport network migration project took about 10 to 12 weeks. During this time, Tellabs Global Services designed the facilities that would be carried on the SONET ring, identifying all circuits that would roll over, assigning new DS-3 circuits and generating DS-1 assignments for the new DS-3s. Tellabs placed orders for the new facilities, as well as tracking and accepting those orders. Tellabs also orchestrated the plan to roll traffic onto the new facilities at the DS-1 level.

One inherent advantage of moving to the ring design is that the wireless carrier was able to bypass several small local exchange carriers, thereby generating efficiencies by minimizing its total number of suppliers.

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